

WHAT IS CLAIMED IS:

1. A container-filling device for lost-foam casting systems, including in a single operational combination:

- supporting means for containers with associated vibration means to set the said containers into vibration;

- sand-feeding means capable of selectively feeding dosed quantities of sand into the said containers; and

- positioning means that can selectively be associated with the said containers to position foam models into the said containers; the said positioning means being capable of sustaining the said models both while the sand is being fed into the containers by the said feeding means and while the containers containing the said models are being vibrated by the said vibration means.

2. A device in accordance with Claim 1, including mobile equipment capable of performing a relative movement of lowering and raising with respect to the said containers and wherein the said sand-feeding means and the said positioning means are carried by the said mobile equipment.

3. A device in accordance with Claim 2, including also the following means, both capable of being activated while the said mobile equipment is in its raised position with respect to the said containers:

- loading means for selectively loading sand into the said feeding means, and

- means for handling the said models capable of selectively transferring the said models to the said positioning means.

4. A device in accordance with Claim 2, wherein the said

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mobile equipment includes a bracket-like formation that sustains the said sand-feeding means and the said positioning means in what are, respectively, upper and lower positions.

5. A device in accordance with Claim 1, wherein the said sand-feeding means include a hopper structure.

6. A device in accordance with Claim 1, wherein the said positioning means include first gripping means capable of acting on the said models and second gripping means capable of acting on the said containers, so that, with the said first and second gripping means gripping, respectively, the models and the container, the said model and the said container will be substantially solidary to each other.

7. A device in accordance with Claim 6, including control means to bring the said first and second gripping means into their gripping position while the said vibration means are operating.

8. A device in accordance with Claim 6, wherein the said first and second gripping means consist, at least partly, of a clamp structure.

9. A device in accordance with Claim 6, wherein the said second gripping means have associated with them means for bringing them back into their open position.

10. A device in accordance with Claim 1, wherein the said positioning means have associated with them a respective moving structure from which the said positioning means can be selectively disengaged.

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12. A device in accordance with Claim 11, wherein the said positioning means and the associated moving structure are provided with complementary centering formations capable of ensuring accurate positioning of the said positioning means and the said moving structure relative to the said container.

14. A device in accordance with Claim 12, wherein the said complementary formations include a fork structure.

- means for handling the said models capable of selectively transferring the said models to the said positioning means;

- shape recognition means associated with the said handling means and capable of recognizing, among a set of possible models, the particular type of models that, at that particular moment, is being carried by the handling means, generating a corresponding type identification signal.

16. A device in accordance with Claim 15, further including marking means that can be individually associated with the said containers and are capable of being read by processing means capable of performing operations on the said containers, so that the processing intervention performed on each of the said containers can be specialized in accordance with the type identification signal generated by the said recognition means for the particular type of model inserted in the said container.

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